**PRACTICAL-4**

**AIM:** An electric appliance shop assigns code 1 to motor,2 to fan,3 to tube and 4 for wires. All other items have code 5 or more. While selling the goods, a sales tax of 8% to motor,12% to fan,5% to tube light,7.5% to wires and 3% for all other items is charged. A list containing the product code and price in two different arrays. Write a java program using switch statement to prepare the bill.

**CODE:**

import java.util.Scanner;

public class ElectricApplianceShop {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        // Example product codes and prices

        int[] productCodes = {1, 2, 3, 4, 5}; // 1: motor, 2: fan, 3: tube, 4: wires, 5: other

        double[] prices = {1500.0, 800.0, 300.0, 100.0, 50.0};

        // Variables to store the total bill and total tax

        double totalBill = 0;

        double totalTax = 0;

        // Iterate through each product and calculate the tax and total cost

        for (int i = 0; i < productCodes.length; i++) {

            int code = productCodes[i];

            double price = prices[i];

            double taxRate = 0;

            // Calculate tax based on product code

            switch (code) {

                case 1:

                    taxRate = 0.08; // 8% tax for motor

                    break;

                case 2:

                    taxRate = 0.12; // 12% tax for fan

                    break;

                case 3:

                    taxRate = 0.05; // 5% tax for tube light

                    break;

                case 4:

                    taxRate = 0.075; // 7.5% tax for wires

                    break;

                default:

                    taxRate = 0.03; // 3% tax for all other items

            }

            double tax = price \* taxRate;

            double totalPrice = price + tax;

            totalTax += tax;

            totalBill += totalPrice;

            System.out.println("Product Code: " + code);

            System.out.println("Price: " + price);

            System.out.println("Tax: " + tax);

            System.out.println("Total Price: " + totalPrice);

            System.out.println();

        }

        System.out.println("Total Tax: " + totalTax);

        System.out.println("Total Bill: " + totalBill);

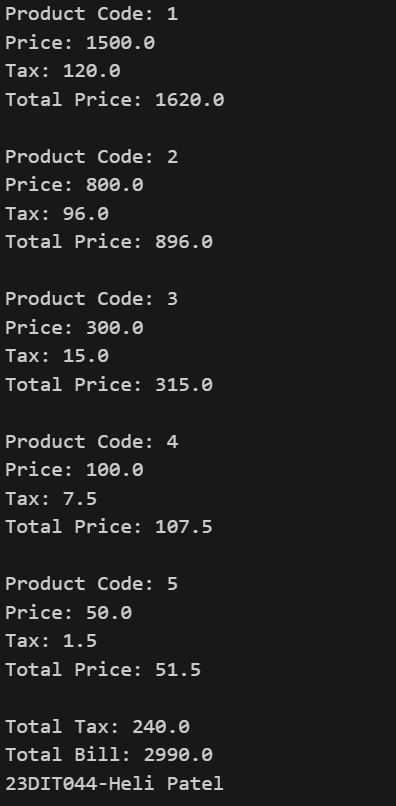
        System.out.println("23DIT044-Heli Patel");

        scanner.close();

    }

}

**OUTPUT:**

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